

IN THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently Amended) Ceramic-A ceramic gas tight high-pressure burner (1)-comprising:  
an ionisable ionizable filling, characterized in, that said ceramic gas tight high-pressure burner (1) comprises  
a discharge vessel (2) having a discharge cavity (3) with a volume in the range of from 3 mm<sup>3</sup> to 30 mm<sup>3</sup>, whereby the internal filling pressure of the discharge cavity (3) is ≥ 0.1 MPa,  
preferably in the range from 0.5 MPa to 4 MPa, at room temperature,  
at least one end closure device at at least one end of the discharge vessel, the at least one end closure device having a feed-through opening and forming a crevice between the at least one end closure device and the discharge vessel, and  
at least one feed-through passing through the feed-through opening, wherein the feed-through opening has a cross-section that

varies along a longitudinal direction.

2. (Currently Amended) ~~Ceramic~~ The ceramic gas tight high-pressure burner (1) according to claim 1, characterized in, that wherein the crevice (11) can be ~~is~~ tubular-shaped and/or ~~and~~ has a volume of  $\geq 0 \text{ mm}^3$  and  $\leq 1.7 \text{ mm}^3$ , preferably the crevice (11) has a volume in the range of  $0 \text{ mm}^3$  to  $1.2 \text{ mm}^3$  and most preferably the crevice (11) has a volume in the range of  $0 \text{ mm}^3$  to  $0.3 \text{ mm}^3$ , whereby and wherein the crevice (11) has an open end facing the discharge vessel (2).

3. (Currently Amended) ~~Ceramic~~ The ceramic gas tight high-pressure burner (1) according to claims 1 or 2, characterized in, that the ceramic gas tight high-pressure burner (1) arranges, at least one end closure device (4) further comprising at least one connection means (10) for gas tight connecting the feed-through (5) to the discharge vessel (2); or at least one end closure member (9) having at least one feed-through opening (12) where a feed-through (5) is arranged, whereby said end closure member (9) is directly gas tight connected to the discharge vessel (2) and the feed-

through (5) is gas tight connected to the end closure member (9) by connection means (10); or at least one end closure member (9) having at least one feed-through opening (12), where a feed-through (5) is arranged therein, and connection means (10) gas tight connecting the end closure member (9) to the end part (7) of the discharge vessel (2) and connection means (10) gas tight connecting the feed-through (5) to the end closure member (9).

4. (Currently Amended) Ceramic The ceramic gas tight high-pressure burner (1) according to claims 1 to 3, characterized in, that claim 3, wherein said connection means (10) is/are is selected from a group comprising a sealant and/or and a welding seam.

Claim 5 (Canceled)

6. (Currently Amended) Ceramic The ceramic gas tight high-pressure burner according to claims 1 to 5, whereby the outer cross-section (13) of the feed-through opening (12) of the end closure device (4) is  $\geq$  than the claim 1, wherein an outer cross-section of the feed-through opening is equal or greater than an

inner cross-section (14) of said feed-through opening (12), whereby the feed-through opening of the feed-through opening, and wherein the feed-through opening has preferably the a shape of at least one of a cylinder, a cone, an ellipsoid, a parabola, a hyperbola, a hemisphere, and a T, and/or any combination of the above mentioned.

7. (Currently Amended) Ceramic The ceramic gas tight high-pressure burner according to claims 1 to 6, characterized in, that claim 1, wherein the at least one end closure device (4), preferably end closure member (9) is/are comprises a cermet material, more preferably the cermet material has having a gradient.

8. (Currently Amended) Ceramic The ceramic gas tight high-pressure burner (1) according to claims 1 to 7, characterized in, that claim 1, wherein at least one end part (7) of the discharge vessel (2) is at least partly coated with a layer that improves connecting means bonding strength, whereby the layer preferably is at least partly located between the an end part (8) of the discharge vessel (2) and the at least one end closure device (4).

## Claim 9 (Canceled)

10. (Currently Amended) Method A method of manufacturing a

ceramic gas tight high-pressure burner (1) comprising:

- a) at least one end closure device (4),
- b) at least two feed-through members (5), and
- c) at least one discharge vessel (2) with at least one end opening (8), whereby the manufacturing method comprises the steps acts of:
  - i) filling said discharge vessel (2) with an ionisable ionizable filling through at least one opening, and
  - ii) closing said at least one end opening by arranging a feed-through (5) in said opening followed by gas tight connecting said feed-through (5) to the end closure device (4) and/or to the discharge vessel (2), whereby a gas tight high-pressure burner (1) is obtained, wherein said at least one end opening has a cross-section that varies along a longitudinal direction.

11. (New) The method of claim 10, wherein an outer cross-

section of said at least one end opening is equal or greater than an inner cross-section of said at least one end opening.

12. (New) A high-pressure burner comprising:

a discharge vessel including an ionizable filling;  
an end closure device located at an end of the discharge vessel, the end closure device having a feed-through opening; and  
a feed-through passing through the feed-through opening,  
wherein the feed-through opening has a cross-section that varies along a longitudinal direction of the discharge vessel.

13. (New) The high-pressure burner, wherein the end closure device is configured to fit in the discharge vessel.

14. (New) The high-pressure burner, wherein the end closure device is configured to fit on the discharge vessel.

15. (New) The high-pressure burner, further comprising an end part configured to fit into the discharge vessel, wherein the end closure device is configured to fit on the end part.